**Sensors and actuators (ECTS credits: 3)**

Language: the course is offered in English, Serbian and Hungarian.

**Course description:**

The course contains the main structural aspects of sensors and actuators, as well as their application in mechatronic devices. The course focuses on both application and integration: optical sensors, capacitive sensors, induction sensors, sensors for force and acceleration, flow and pressure sensors and other related fields. The other part of the course is focused on actuators, such as pneumatic, electric and hydraulic actuators. In the classes held at the laboratory, students work with real devices in real mechatronic environment.

**Aims:**

The aims of this course include that the students will learn how to integrate commercially used sensors and actuators in real mechatronic systems. The expected learning outcome of this course is that by the end of the semester, students should be able to choose, customize, configure and embed sensors and actuators in an industrial system.